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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,458	01/12/2004	Reinhard Burk	16216	1064

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/755,458	Applicant(s) BURK, REINHARD	
	Examiner Diem Tran	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 6/6/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed on 6/6/06. In this amendment, claims 1, 9, 16 have been amended and claims 18-20 have been added. Overall, claims 1-20 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 8-10, 12, 15, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyers et al. (US Patent 6,062,178).

Regarding claims 1, 9, 19, Meyers discloses an exhaust gas flow circuit for reducing pressure in an exhaust system of an internal combustion engine, comprising:

a pumping unit (32) arranged in series with the exhaust system including an inlet in fluid communication with an outlet of a forward portion of the exhaust system, and an outlet in fluid communication with an inlet of a rearward portion of the exhaust system, said pumping unit selectively pumping exhaust gas from the forward portion to the rearward portion of the exhaust system, and a power source driving said pumping unit (see Figure 3, col. 2, lines 65-67, col. 3, lines 1-4).

Regarding claims 2, 10, 18, Meyers further discloses that a bypass passage arranged in parallel flow relation with said pumping unit (32) between said pumping unit inlet and outlet;

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and a bypass valve (34b) for opening said bypass passage and providing a flow path for exhaust gas from the forward portion to the rearward portion of the exhaust system in parallel with said pumping unit, and for closing said bypass passage to prevent exhaust gas flow there through (see Figure 3).

Regarding claim 4, Meyers further discloses that said bypass valve (34b) is located in said bypass passage (see Figure 3).

Regarding claims 5, 12, Meyers further discloses that said pumping unit is a gas pump (see col. 2, lines 65-67).

Regarding claims 8, 15, Meyers further discloses that said power source is an electric motor (see col. 3, lines 2-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyers et al. (US Patent 6,062,178) in view of Hansel et al. (US Patent 5,451,385).

Regarding claims 3, 11, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, Meyers further discloses that said bypass valve (34b) opens or closes said bypass passage when an engine load is relatively high or low (see col. 3, lines 9-15, 32-35);

however, fails to disclose that said bypass valve opens said bypass passage when a mass flow rate of exhaust gas in the exhaust system is relatively high and closes said bypass passage when the mass flow rate of exhaust gas is relatively low. Hansel teaches that a mass flow rate of exhaust gas in the exhaust system increases as the engine load increases (i.e. a mass flow rate of exhaust gas is directly proportional to an engine load) (see col. 10, lines 65-66). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Hansel in the Meyers system, since the use thereof would have been conventional in the art.

Claims 6, 7, 13, 14, 16, 17, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyers et al. (US Patent 6,062,178) in view of Shimada (JP 56-88910).

Regarding claims 6, 13, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, however, fails to disclose that a catalytic converter is located in the forward portion upstream from said pumping unit inlet. Shimada teaches that it is conventional in the art, to utilize a catalytic converter (4) being located in the forward portion upstream from said pumping unit inlet (see Figure II).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Shimada in the Meyers system, since the use thereof would have removed the harmful emissions in the exhaust gas.

Regarding claims 7, 14, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, however, fails to disclose that the engine includes an intake system that is naturally aspirated.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the invention of Meyers to a naturally aspirated engine, since this recitation amounts to a statement of intended use. Note that both "turbocharger engine" and "naturally-aspirated engine" generate exhaust gases; and the mere selection of the exhaust gas system of Meyers for use in a naturally aspirated engine would be well within the level of ordinary skill in the art.

Regarding claim 16, Meyers discloses an exhaust gas system for an internal combustion engine, comprising:

an exhaust manifold for carrying exhaust gas from the engine; a housing located in the exhaust gas, a pumping unit arranged in series with the exhaust gas including an inlet in fluid communication with an outlet of a forward portion of the exhaust system, and an outlet in fluid communication with an inlet of a rearward portion of the exhaust system, said pumping unit selectively pumping exhaust gas from the forward portion to the rearward portion of the exhaust system, and a power source driving said pumping unit (see Figure 3, col. 2, lines 65-67, col. 3, lines 1-4); however, fails to disclose that a catalytic converter is located upstream of said pumping unit. Shimada teaches that it is conventional in the art, to utilize a catalytic converter (4) located in the forward portion upstream from said pumping unit inlet to purify the exhaust gas (see Figure II).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Shimada in the Meyers system, since the use thereof would have removed the harmful emissions in the exhaust gas.

Regarding claims 17, 20, Meyers further discloses that a bypass passage arranged in parallel flow relation with said pumping unit (32) between said pumping unit inlet and outlet; and a bypass valve (34b) for opening said bypass passage and providing a flow path for exhaust gas from the forward portion to the rearward portion of the exhaust system in parallel with said pumping unit, and for closing said bypass passage to prevent exhaust gas flow there through (see Figure 3).

Response to Arguments

Applicant's arguments filed on 6/6/06 have been fully considered but they are not deemed persuasive. Applicant argued that the Meyers reference fails to disclose that the pumping unit is arranged in series with said exhaust system. The Examiner respectfully disagrees, since the paths of the exhaust gas upstream and downstream of pumping unit (32) in Meyers are in series with the pumping unit (32) as shown in Figure 3, therefore, the pumping unit (32) is arranged in series with the exhaust gas system.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 6:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).



Diem Tran
Patent Examiner
Art unit 3748

DT
August 25, 2006



THOMAS DENION

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700